

**ABSTRACT OF THE DISCLOSURE**

Disclosed is an apparatus for transmitting and receiving radio signals in a pico-BTS. The apparatus includes a plurality of antennas for transmitting and receiving the radio signals, installed in predetermined positions; and a plurality of repeaters connected to the associated antennas, for controlling levels of the transmission and reception signals to a predetermined level. Further, the apparatus includes a plurality of bi-directional amplifiers for compensating for a signal loss, installed in predetermined positions between the repeaters.